Cells laid down and then laid down some more willy nilly

Bone Organ Level

First formed by intramembraneous ossification (mesenchymal cells)

Can be formed around Hyaline Cartilage model (Intramembraneous ossificcation (bony plate) and endochondral ossification (rest of bone))

Primary Spongiosa is WOVEN Bone (first islands are woven only fetus)

ISLANDS ARE LAMELLAR BONE after remodeling

Trabecular Bone: Inside of bone organ, more space than bone tissue/volume, bone islands

Trabecular = Cancellous = Spongy

Compaction

Cortical Bone: Outer layer of bone organ, more bone tissue than space/volume, has osteons

Cortical = Dense= Compact

IS WOVEN BONE UNTIL REMODELED

Break Down and organization of bone fibers (collagen type I)

Collagen Fiber Level

Woven Bone: Bone w NO layered type 1 Collagen fibers, Random orietation

Woven = Immature = primary

Remodeling (Constant)

Lamellar Bone: bone tissue w layered arrangement of type I collagen fibers

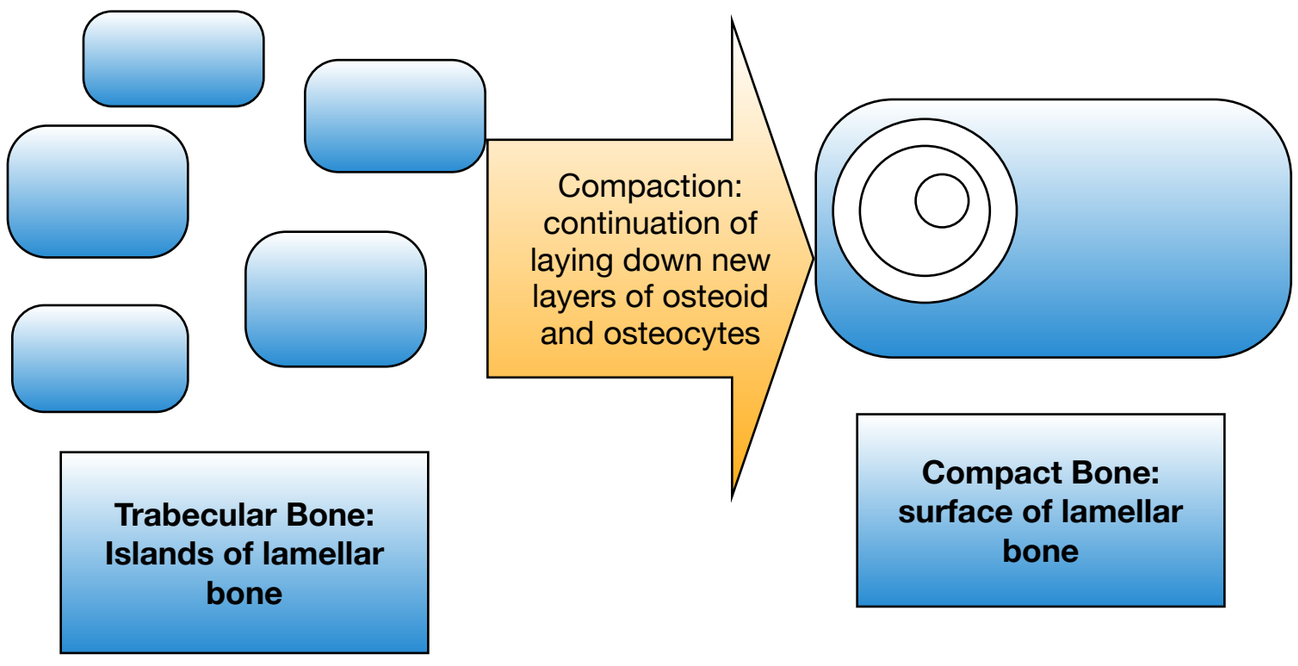
Lamellar = Mature = Secondary

Remodeling (Constant)

New Lamellar Bone

Functional Classifi cations

Metabolic Bone: internal remodeling in response to stress--> releasing ions, lays down lamellar bone

internal reodeling = haversian remodeling = cortical remodeling = Secondary Bone formation

Structural Bone: Older mature osteons and interstital lamellae, heavily calcified, structural support